

REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-14, 16-29, 32, and 34-39 are currently pending. Claims 30, 31, and 33 have been canceled without prejudice; and Claims 1, 21, 32, and 34 have been amended by the present amendment. The changes to the claims are supported by the originally filed specification and do not add new matter.

In the outstanding Office Action, the specification was objected to as failing to provide proper antecedent basis for the term “providing medium” recited in Claim 31; Claims 1-14 and 16-39 were rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement regarding various phrases; Claims 30, 31, and 33-39 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter; Claims 1-4, 7, 10-14, 16-18, and 20-39 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,983,237 to Jain et al. (hereinafter “the ‘237 patent”) in view of Kohonen et al. (“Self Organization of a Massive Document Collection”), further in view of U.S. Patent Application Publication No. 2002/0138487) to Weiss et al. (hereinafter “the ‘487 application”); and Claims 5, 6, 8, 9, and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘237 patent and the Kohonen et al. reference, further in view of U.S. Patent No. 5,754,938 to Herz et al. (hereinafter “the ‘938 patent”).¹

Applicants note that, even though the Office Action Summary indicates that the present Office Action is final, the discussion with the Examiner on May 7, 2008, indicated that the Office Action is, in fact, non-final.

¹ Applicants note that the rejection of Claims 5, 6, 8, 9, and 19 does not include the ‘487 application, even though Claim 1, from which those claims depends, is rejected based on the combined teachings of the ‘237 patent, the Kohonen et al. reference, and the ‘487 application. Thus, it is unclear whether the Examiner meant to include the ‘487 patent in the rejections of Claims 5, 6, 8, 9, and 19.

Applicants respectfully submit that the objection to the specification is rendered moot by the present cancellation of Claim 31.

Applicants respectfully submit that the rejection of the claims under 35 U.S.C. § 112, first paragraph, is rendered moot by the present amendment to Claim 1. Claim 1 has been amended to no longer recite that the self-organizing map is created by extracting features from the information items and comparing, collectively, all of the features extracted from the information items. Further, Claim 1 has been amended to recite displaying one or more images obtained from the image data included in the selected information items defined by the search criteria so as to represent the content of the selected information items. Applicants respectfully submit that this amendment is supported at least on page 16, lines 5-7 of the specification which states that “a hierarchy of RSKs may be provided in which an RSK is chosen to represent a whole results list, an RSK is chosen to represent each cluster, and individual RSKs represent individual media items in the results list.” See also the information items described on page 15, lines 21-24, the results list on page 16, lines 5 and 6, in addition to the methods described on page 16, line 10 to page 17, line 2. For the reasons stated above, Applicants respectfully submit that the amended claims satisfy 35 U.S.C. § 112, first paragraph.

Applicants respectfully submit that the rejection of Claims 30, 31, and 33 are rendered moot by the present cancellation of those claims. Further, Applicants respectfully submit that the rejections of Claims 32 and 34 under 35 U.S.C. § 101 are rendered moot by the present amendment to those claims. Claim 32 has been amended to recite a computer-readable medium storing a program which, when executed by a computer, causes the computer to perform the method recited in Claim 21. Further, Claim 34 has been amended to be directed to a computer-readable medium storing a program that, when executed by a computer, causes the computer to generate a user interface. Accordingly, Applicants respectfully submit that

Claim 34 is directed to functional description material that is recorded on a computer-readable medium and is structurally and functionally interrelated to the medium.

Amended Claim 1 is directed to an information retrieval system in which a set of distinct information items map to respective nodes in a self-organizing map by mutual similarity of the information items, so that similar information items map to nodes at similar positions in the self-organizing map, wherein the self-organizing map is trained upon reduced dimension characterizations of the information items, the system comprising: (1) a user control for defining a search criterion for selecting information items using a standard keyword search technique; (2) a detector for detecting those positions within the self-organizing map corresponding to the information items selected by the standard keyword search technique; (3) a graphical user interface for displaying display points representing those positions within the self-organizing map corresponding to the selected information items; and (4) a processor, responsive to the selected information items defined by the search criterion, for providing one or more representations representative of the information content of the selected information items. Further, Claim 1 clarifies that the information items include at least image data, and that the processor is responsive to the selected information items and displays one or more images obtained from the image data included in the selected information items defined by the search criterion so as to represent the content of the selected information items. The changes to Claim 1 are supported by the originally filed specification and do not add new matter.²

Regarding the rejection of Claim 1 under 35 U.S.C. § 103, the Office Action asserts that the '237 patent discloses everything in Claim 1 with the exception of a self-organizing map and that one or more images are obtained from the image data included in the selected

² See, e.g., page 10, lines 8-10; page 11, lines 26-30; page 13, lines 20-29; and, in particular, page 13, line 26.

information items defined by the search criterion, and relies on the Kohonen et al. reference and the '487 patent to remedy those deficiencies.

The '237 patent is directed to a visual query processing method including the steps of providing the user query; applying the user query to a visual dictionary that includes a plurality of feature vectors so as to generate a set of query vectors; and applying the query vectors to an image database comprising a plurality of images so as to provide a list of similar images. Further, the '237 patent discloses a set of queries based on descriptors of images to search a database, wherein the descriptors are compared with stored descriptors and are judged to see if they are within a ballpark approximation of the feature region. Thus, the '237 patent discloses the use of selected, separate, and direct comparisons of different features of an image. In particular, the '237 patent discloses that during a semantic query, the victionary-enhance system transforms the user's original term (or image query) to a set of equivalent queries, and internally executes all the equivalent queries before presenting the results to the user.³ In other words, the '237 patent uses a victionary to find synonyms for a user's original keywords before presenting them to a search system.

However, Applicants respectfully submit that the '237 patent fails to disclose a graphical user interface for displaying display points representing those positions within the self-organizing map corresponding to the selected information items, wherein the selected information items are selected by the standard keyword search technique and the positions were detected within the self-organizing map by a detector, as required by Claim 1.

Further, as submitted in the outstanding Office Action, the '237 patent fails to disclose a self-organizing map, as recited in Claim 1.

In contrast to the system disclosed by the '237 patent, Applicants note that, in a non-limiting example, the invention recited in Claim 1 includes a search criterion for selecting

³ See '237 patent, Abstract.

information items used in a standard keyword technique, and a detector for detecting those positions within the self-organizing map corresponding to the information items selected by the standard keyword technique. In particular, page 13, lines 20-29 of the specification state that the user's keywords are compared with the information items in the database using a standard keyword search technique. In this manner, a list of results is generated and the display area of the self-organizing map displays display points corresponding to each of the items in the result. In contrast, the '237 patent does not disclose the use of self-organizing map to display results of a separate search system.

The Kohonen et al. reference discloses a self-organizing map for organizing a massive document collection using feature vectors comprising a statistical representation of the vocabularies of the documents. In particular, the Kohonen et al. reference discloses that the self-organizing map is itself the search system and that the user's keywords are formulated for presentation to the self-organizing map and the results are the documents associated with those areas of the self-organizing map that respond to the user's keywords. In this regard, Applicants note that the Kohonen et al. reference specifically teaches against the notion that a separate search process is used and that a self-organizing map then characterizes the results of that separate search process. In particular, Applicants respectfully submit that the Kohonen et al. reference fails to disclose a detector for detecting those positions within the self-organizing map corresponding to the information items selected by the standard keyword search technique, wherein a user control is used for defining a search criterion for selecting information items using a standard search technique, as required by Claim 1.

Further, the Kohonen et al. reference fails to disclose a graphical user interface for displaying display points representing those positions within the self-organizing map corresponding to the selected information items (selected by the standard keyword search technique), as recited in Claim 1. As discussed above, the Kohonen et al. reference teaches a

self-organizing map that is itself a search system, but does not disclose detecting and displaying points (that represent positions within a self-organizing map), the information items being selected by a standard keyword search technique. Rather, the Kohonen et al. reference discloses that the self-organizing map is itself a search system.

Further, as admitted in the outstanding Office Action, the Kohonen et al. reference fails to disclose one or more image items obtained from the image data included in the selected information items defined by the search criterion.

The '487 application is directed to the hierarchical clustering of Web sites according to common features, and the presentation of labeled continents and countries, the size of which are proportional to the number of Web sites deemed relevant to the user's search query. As shown in Figure 6, the '487 application discloses that the names of the clusters that contain instances of search words are presented to the user.

However, Applicants respectfully submit that the '487 application fails to disclose information items including at least image data, and a processor that displays one or more images obtained from the image data included in the selected information items obtained by the search criteria, as recited in amended Claim 1.

Further, Applicants respectfully submit that the '487 application fails to remedy the deficiencies of the '237 patent, and the Kohonen et al. reference, as described above. In particular, the '487 application fails to disclose a detector for detecting those positions within the self-organizing map corresponding to information items selected by the standard keyword search technique, and a graphical user interface for displaying display points representing those positions within the self-organizing map corresponding to the selected information items, as recited in amended Claim 1.

Thus, no matter how the teachings of the '237 patent, the Kohonen et al. reference, and the '487 application are combined, the combination does not teach or suggest the detector

and the graphical user interface recited in amended Claim 1. Accordingly, Applicants respectfully submit that the rejection of Claim 1 (and all similarly rejected dependent claims) is rendered moot by the present amendment to Claim 1.

Independent Claims 21 and 34 recite limitations analogous to the limitations recited in Claim 1, and have been amended in a manner analogous to the amendment to Claim 1. Accordingly, for the reasons stated above, Applicants respectfully submit that the rejections of Claims 21 and 34 (and all similarly rejected dependent claims) is rendered moot by the present amendment to Claims 21 and 34.

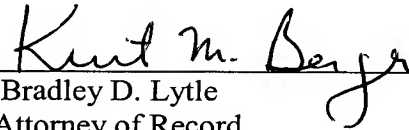
Regarding the rejection of dependent Claims 5, 6, 8, 9, and 19 under 35 U.S.C. § 103, Applicants respectfully submit that the '938 patent fails to remedy the deficiencies of the '237 patent and the Kohonen et al. reference, as discussed above. Accordingly, Applicants respectfully submit that the rejections of Claims 5, 6, 8, and 19 are rendered moot by the present amendment to Claim 1.

Thus, it is respectfully submitted that independent Claims 1, 21, and 34 (and all associated dependent claims) patentably define over any proper combination of the '237 patent, the '938 patent, the '487 application, and the Kohonen et al. reference.

Consequently, in view of the present amendment and in light of the above discussion, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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